00227 "6526462

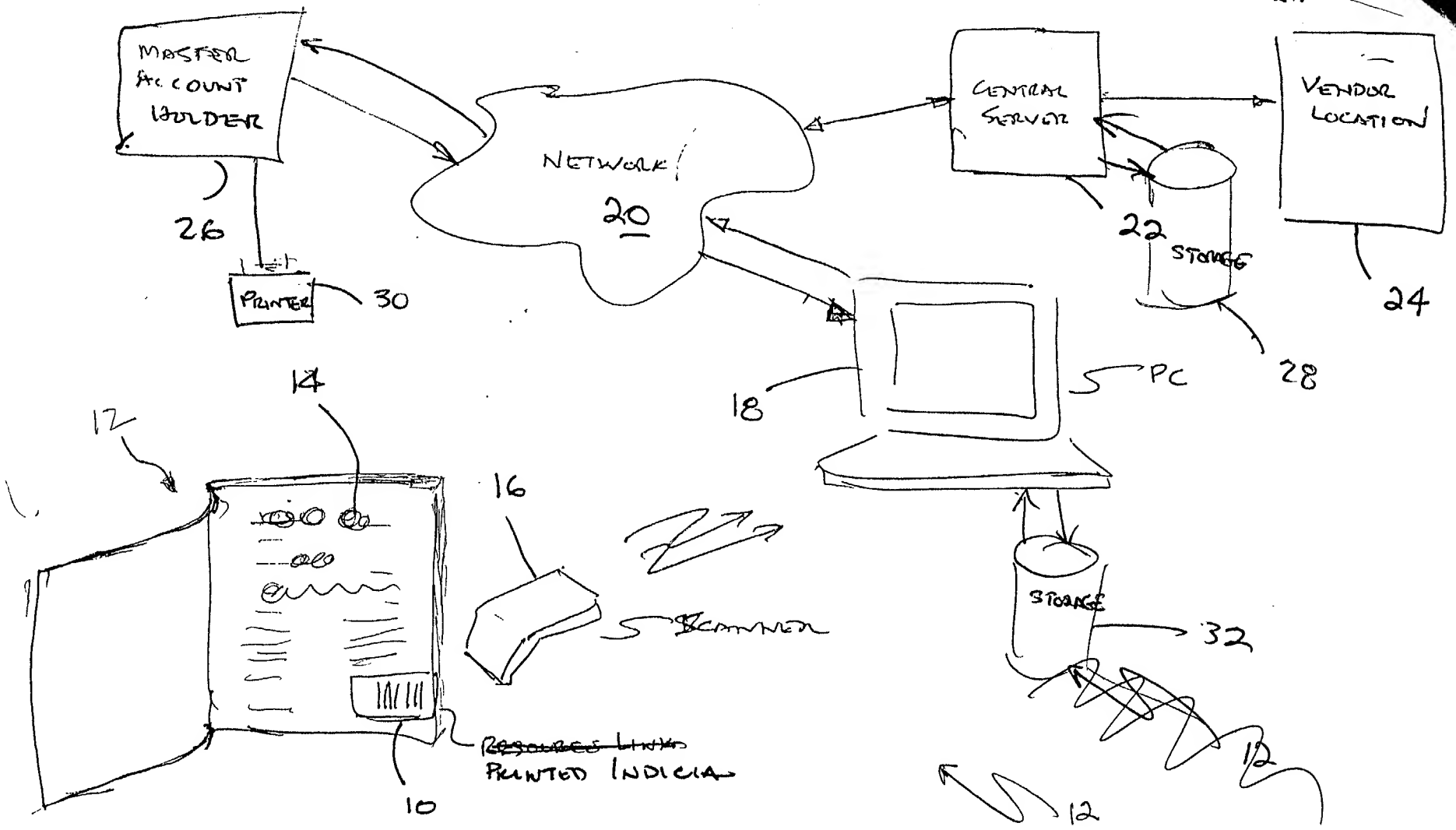

FIG. 1

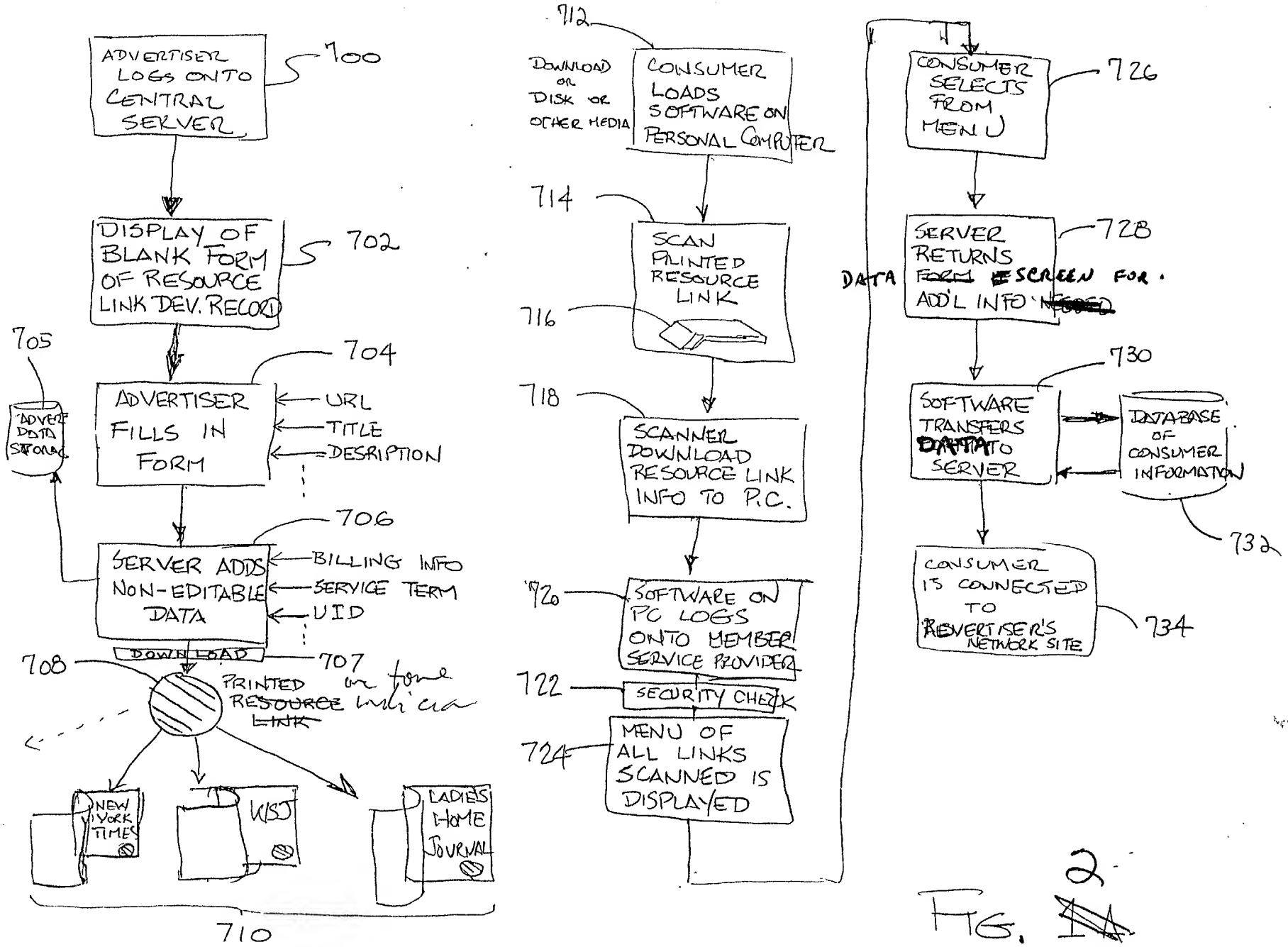
ADVERTISER LOGS ONTO CENTRAL SERVER
700
DISPLAY OF BLANK FORM OF RESOURCE LINK DEV. RECORD
702
705
ADVERT DATA STORAGE
704
ADVERTISER FILLS IN FORM
URL
TITLE
DESRIPTION
706
SERVER ADDS NON-EDITABLE DATA
BILLING INFO
SERVICE TERM
UID
DOWN LOAD
707
708
PRINTED RESOURCE LINK
NEW YORK TIMES
WSJ
LADIES HOME JOURNAL
710
712
DOWNLOAD OR DISK OR OTHER MEDIA
CONSUMER LOADS SOFTWARE ON PERSONAL COMPUTER
714
SCAN PRINTED RESOURCE LINK
716
718
SCANNER DOWNLOAD RESOURCE LINK INFO TO P.C.
720
SOFTWARE ON PC LOGS ONTO MEMBER SERVICE PROVIDER
722
SECURITY CHECK
724
MENU OF ALL LINKS SCANNED IS DISPLAYED
726
CONSUMER SELECTS FROM MENU
DATA
728
SERVER RETURNS FORM SCREEN FOR ADD'L INFO NEEDED
730
SOFTWARE TRANSFERS DATA TO SERVER
DATABASE OF CONSUMER INFORMATION
732
CONSUMER IS CONNECTED TO ADVERTISER'S NETWORK SITE
734

FIG. 2

Create ~~HotDot~~ Record

198

FIG 3

RESOURCE LINK DEVICE

Registrar

Resolution Sub System (ResSys)

URL (Universal Resource Locator) Template
This is a standard Internet URL with zero or more named parameters surrounded by angle brackets, for example <DOB> for consumer's date of birth. Parameters can refer to a field in the consumer demographics database -- these are supplied at HotDot resolution time. Parameters can also refer to one of this HotDot's Embedded Fields (see below); these are supplied at HotDot rendering time.

Short and Long Titles
These identify how the underlined hyperlink should appear when displaying a HotDot List. The Short Title is needed when screen real estate is restricted on the Internet Client (ie, PDA, cell phone).

Description
This is a brief description of the target page.

Embedded Description
Up to 8 character text to be embedded into the actual rendered HotDot image.

Embedded Category
User picks from a list of categories. This is then mapped to a three character code embedded in the rendered HotDot image to help identify its function at scan time, perhaps via an on-screen icon.

Search Meta Tags?
User must specify if the specified Web page contains meta tags that should be searched daily to automatically update certain HotDot details.

HotDots Guide Category
User picks from a tree-selector of hierarchical categories to determine where this HotDot would appear in the Guide.

HotDots Searchable Keywords
User enters a few keywords that can be subsequently searched for.

Image
User can upload an image to be displayed along with the titles and description on a HotDots list.

Embedded Field List
User can specify one or more fields to be supplied at HotDot rendering time. Each parameter is assigned a name, datatype, length, and ordinal position. Example: name "Serial Number", type "Integer", length 4 bytes.

Start

100. User logs into Registrar

200

102. User initializes a blank ~~HotDot~~ Inoicia record.

202

Required

104. User supplies required information

204

205

106. Optional Info?

No

Yes

206

Optional

106. User supplies one or more optional ~~HotDot~~ Inoicia fields.

108. User initiates save operation.

208

110. Non-editable fields are assigned values, for example, ~~HotDot~~ Inoicia expiration date.

210

112. BEGIN DISTRIBUTED TRANSACTION

212

114. Registrar logs into ResSys

214

Inoicia ~~HotDot~~ Data

116. ~~HotDot~~ Inoicia data is sent to ResSys

216

118. Receive ~~HotDot~~ Inoicia UID

218

Inoicia ~~HotDot~~ UID

120. Insert ~~HotDot~~ Inoicia using UID as Primary Key
Rollback Trans on Error

220

Inoicia ~~HotDot~~ Record

Inoicia ~~HotDots~~ Database

122. COMMIT DISTRIBUTED TRANSACTION

222

Stop

Start

124. ResSys receives authentication data and transaction ID; ResSys begins a session.

224

Authent Data + Trans ID

126. ResSys receives ~~HotDot~~ Inoicia Data from Registrar

226

Inoicia ~~HotDot~~ Data

128. Generate a new ~~HotDot~~ Inoicia UID (Unique ID); Rollback Trans on Error.

228

130. Insert new ~~HotDot~~ Inoicia Record using UID as Primary Key
Rollback Trans on Error

230

UID

132. Send UID to Registrar

232

Inoicia ~~HotDot~~ Record

Stop Session

Inoicia ~~HotDots~~ Database

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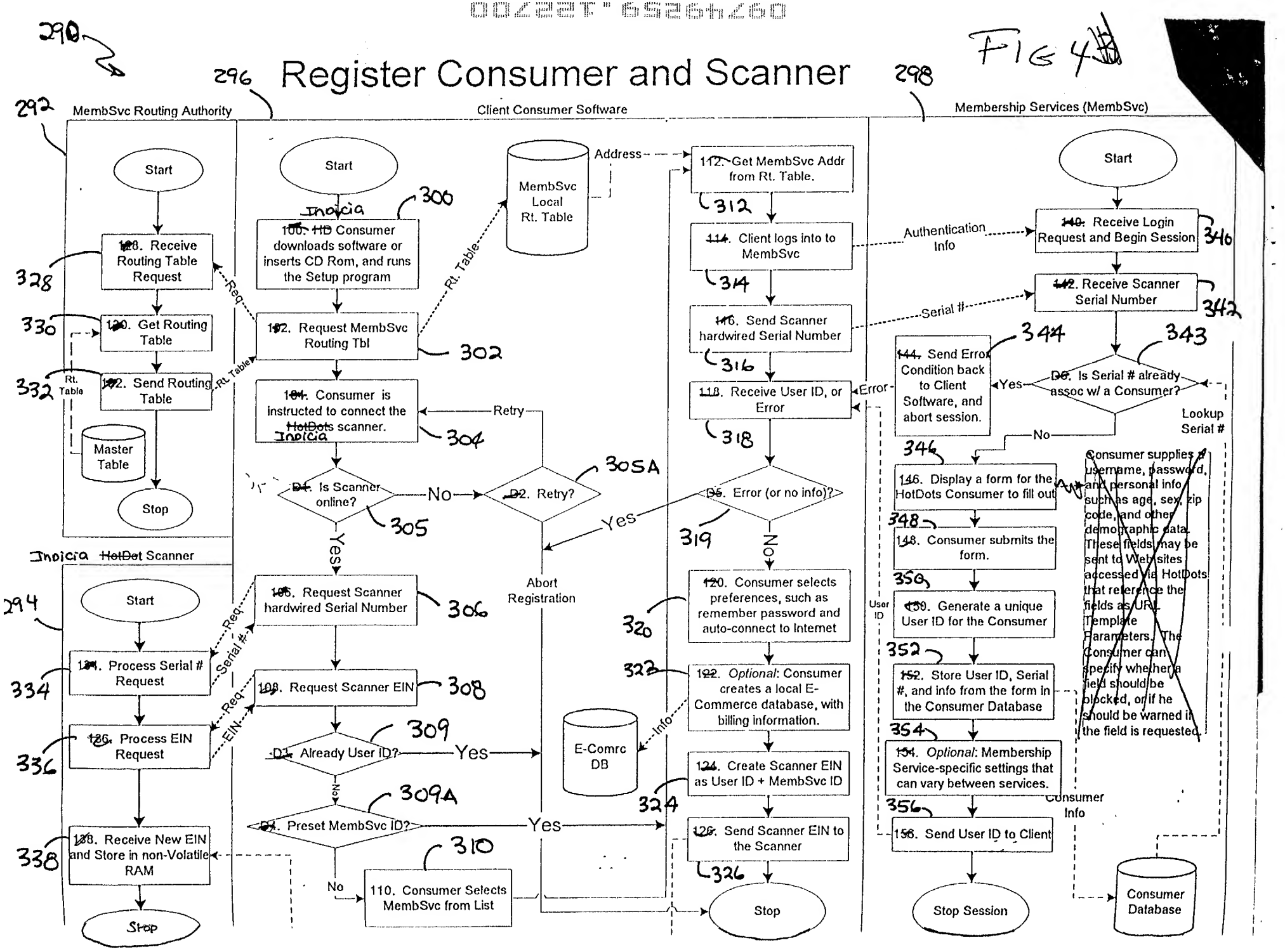

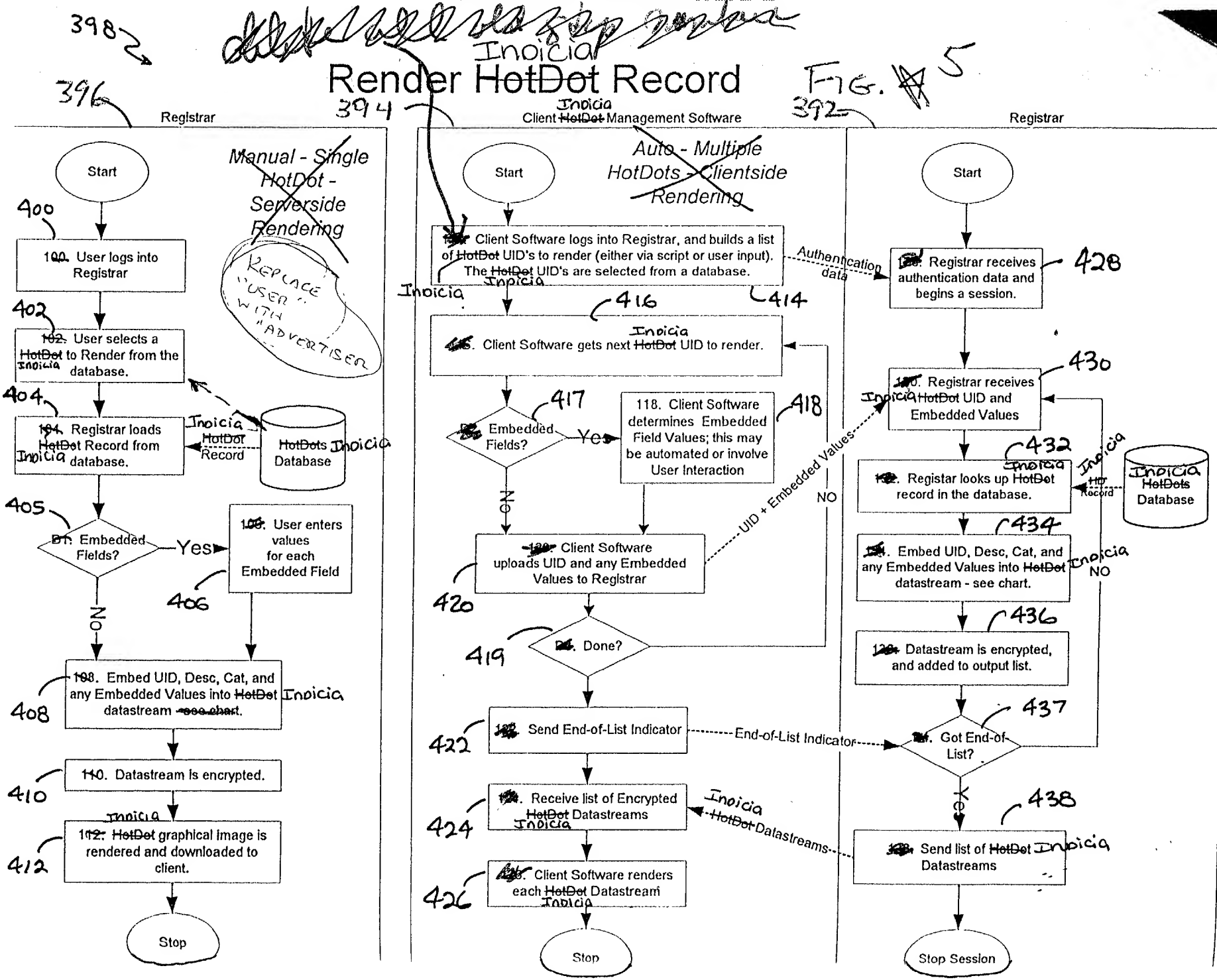
398
Inoicia
Render HotDot Record
396
Registrar
394
Inoicia
Client HotDot Management Software
392
Registrar
Start
Manual - Single HotDot - Serverside Rendering
Auto - Multiple HotDots - Clientside Rendering
400
100. User logs into Registrar
402
102. User selects a HotDot to Render from the Inoicia database.
404
104. Registrar loads HotDot Record from Inoicia database.
Inoicia HotDot Record
HotDots Inoicia Database
405
D1. Embedded Fields?
Yes
106. User enters values for each Embedded Field
406
NO
108. Embed UID, Desc, Cat, and any Embedded Values into HotDot Inoicia datastream -see chart.
408
110. Datastream is encrypted.
410
Inoicia
112. HotDot graphical image is rendered and downloaded to client.
412
Stop
Client Software logs into Registrar, and builds a list of HotDot UID's to render (either via script or user input). The HotDot UID's are selected from a database.
414
Inoicia
Authentication data
Registrar receives authentication data and begins a session.
428
416
Inoicia
Client Software gets next HotDot UID to render.
430
Registrar receives Inoicia HotDot UID and Embedded Values
417
D2. Embedded Fields?
Yes
118. Client Software determines Embedded Field Values; this may be automated or involve User Interaction
418
NO
UID + Embedded Values
432
Registar looks up HotDot record in the database.
Inoicia HotDot Record
Inoicia HotDots Database
434
Embed UID, Desc, Cat, and any Embedded Values into HotDot datastream - see chart.
Inoicia
NO
120. Client Software uploads UID and any Embedded Values to Registrar
420
436
Datastream is encrypted, and added to output list.
419
D3. Done?
437
422
Send End-of-List Indicator
End-of-List Indicator
D4. Got End-of-List?
424
Receive list of Encrypted HotDot Datastreams
Inoicia
Inoicia HotDot Datastreams
438
Send list of HotDot Inoicia Datastreams
426
Client Software renders each HotDot Datastream
Inoicia
Stop
Stop Session

FIG. 5

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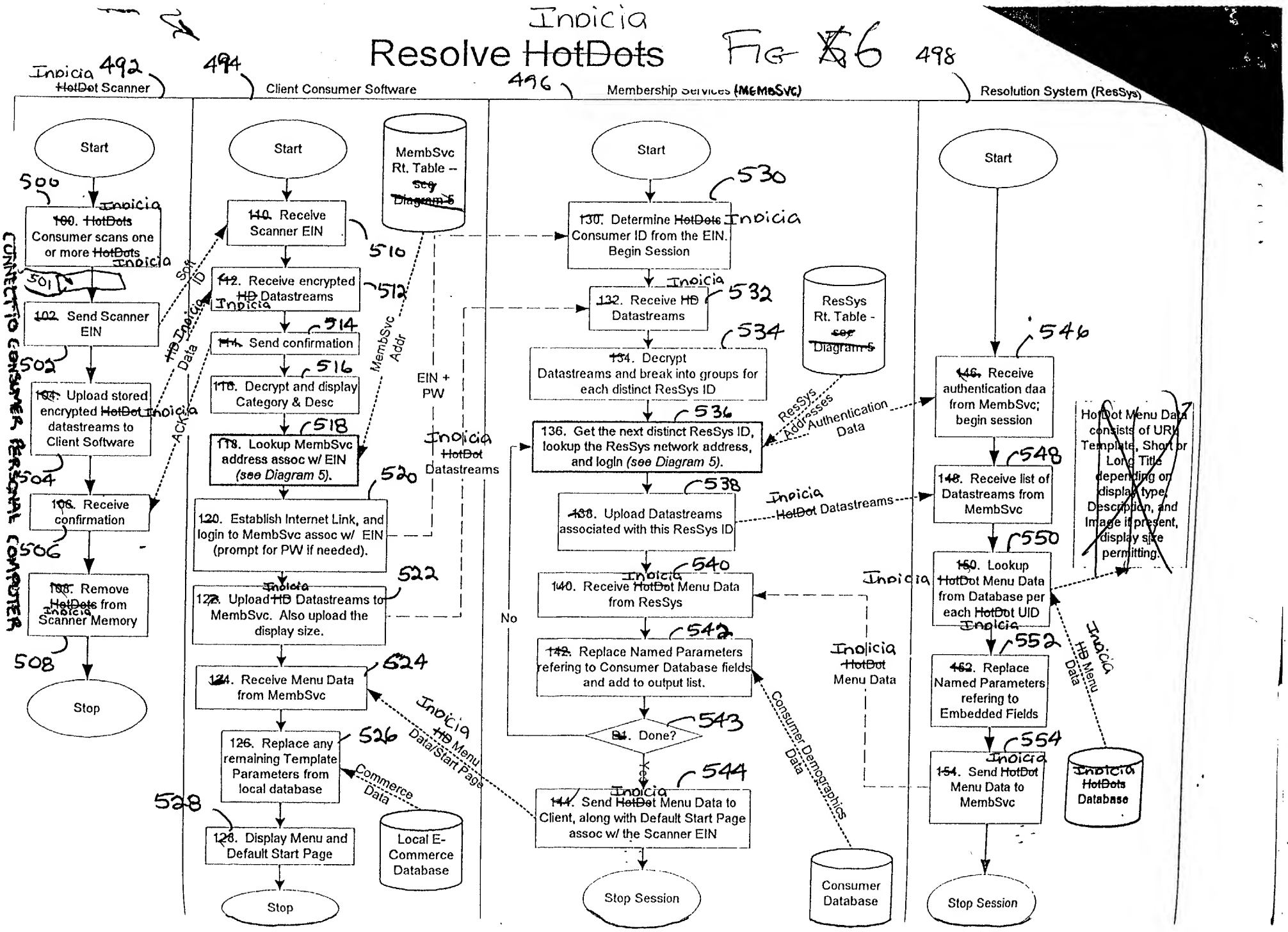
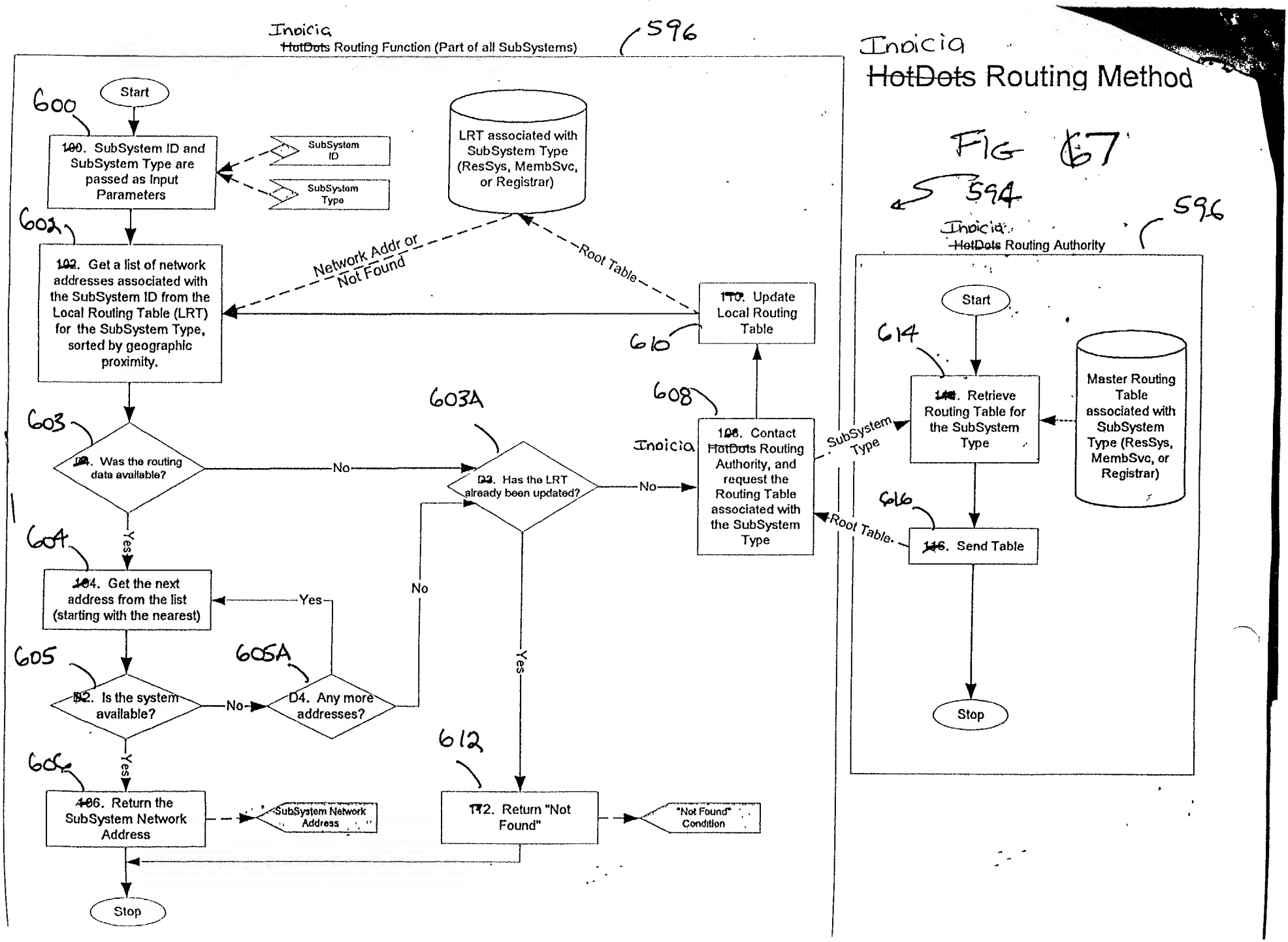
Inpicia Resolve ~~HotDots~~ Fig ~~5~~ 6




Inoicia
HotDots Routing Function (Part of all SubSystems)
596
Start
600
100. SubSystem ID and SubSystem Type are passed as Input Parameters
SubSystem ID
SubSystem Type
LRT associated with SubSystem Type (ResSys, MembSvc, or Registrar)
602
102. Get a list of network addresses associated with the SubSystem ID from the Local Routing Table (LRT) for the SubSystem Type, sorted by geographic proximity.
Network Addr or Not Found
Root Table
110. Update Local Routing Table
610
603
103. Was the routing data available?
No
603A
113. Has the LRT already been updated?
No
608
Inoicia
108. Contact HotDots Routing Authority, and request the Routing Table associated with the SubSystem Type
SubSystem Type
Root Table
Yes
604
104. Get the next address from the list (starting with the nearest)
Yes
No
605
112. Is the system available?
No
605A
D4. Any more addresses?
Yes
Yes
606
106. Return the SubSystem Network Address
SubSystem Network Address
612
112. Return "Not Found"
"Not Found" Condition
Stop
Inoicia
HotDots Routing Method
FIG 67
594
596
Inoicia
HotDots Routing Authority
Start
614
148. Retrieve Routing Table for the SubSystem Type
Master Routing Table associated with SubSystem Type (ResSys, MembSvc, or Registrar)
616
146. Send Table
Stop